REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. § 103. The Applicants herein amend claims 1, 8 and 12 to clarify the claims. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 1-19 UNDER 35 U.S.C § 103

The Examiner rejected claims 1-19 in the Office Action under 35 U.S.C. §103 as being unpatentable over Bradley, et al. (U.S. Patent No. 7,082,463, issued July 25, 2006, herein referred to as "Bradley") in view of Basturk (U.S. Patent No. 7,111,074, issued on September 19, 2006, hereinafter referred to as "Basturk"). The Applicants respectfully traverse the rejection.

Bradley teaches time-based monitoring of service level agreements. Bradley teaches monitoring service level agreements. The network provides time ranges for one or more tests to be performed to allow a customer to determine if they are being provided services in accordance with their SLA. (See Bradley, Abstract; col. 2, l. 60 - col 3, l. 5).

Basturk teaches a control method for data path load-balancing on a data packet network. The control system is used for controlling data flow over a data-packet-network according to specific destinations. (See Basturk, Abstract).

The Examiner's attention is directed to the fact that Bradley and Basturk, alone or in any permissible combination, fails to teach or suggest an apparatus, method or server for making quality measurements in a network comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a total number of degradations for each one of said plurality of routers in said network over a period of time, as positively claimed by the Applicants. Specifically, Applicants' independent claims 1, 8 and 12

positively recite:

1. A system for making quality measurements in a network, the system comprising:

a plurality of routers for routing traffic through the network;

means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers from said plurality of routers; and

means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. (Emphasis added).

8. A method of making quality measurements in a network, the method comprising:

monitoring an R-Factor for each path of all paths within said network, wherein said each path is between a pair of routers;

tracking at least one path that exhibits said R-Factor below a target value;

tracking a start time indicating when the R-Factor of a particular path of said at least one path falls below the target value;

tracking an end time indicating when the R-Factor of the particular path rises above the target value;

determining if an overlap exists between the start time and the end time for multiple paths connecting to a particular router;

charging the particular router connected to the multiple paths with one degradation if the overlap exists;

charging the particular router with each degradation connected to the multiple paths if the overlap does not exist; and

tracking a number of degradations for each router of all routers in said network over a period of time. (Emphasis added).

12. A server for making quality measurements in a network, the server comprising:

means for taking measurements on each path of all paths within said network, wherein said each path is between a pair of routers from a plurality of routers; and

means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of all of said plurality or routers in said network over a period of time. (Emphasis added).

In one embodiment, the Applicants' invention teaches an apparatus,

method or server for making quality measurements in a network comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. For example, the present invention translates measurements of the performance of a path between routers into measurements of the performance of the routers. (See e.g., Applicants' specification, p. 6, ll. 7-15). The performance of paths between designated sites may be monitored over a period of time and tracked via a matrix. (See e.g., Applicants' specification, p. 6, ll. 12-15, p. 8, ll. 15-21 and FIG. 4).

The combination of Bradley and Basturk fails to render obvious the Applicants' invention because the combination of Bradley and Basturk fails to teach or suggest an apparatus, method or server for making quality measurements in a network comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. Notably, Bradley only allows a customer to establish parameters for ensuring that SLA agreements are being met. (See Bradley, col. 24, ll. 14-34). For example, Bradley teaches that a customer may specify which devices to monitor for performance of a path. (See Bradley, col. 33, l. 41 - col. 34, l. 50).

The Examiner asserts that the Examiner believes that the Applicants have misread Bradley. However, contrary to the Examiner's assertion, Bradley clearly teaches that the customer or user (and not the administrator client) establishes the parameters and specifies the devices for tracking performance based upon the SLCs and SLAs. For example, Bradley explicitly teaches "a user interacts with client 116 to communicate with SLM server 110 to define a Service Level

Contract." (See Bradley, col. 8, ll. 48-52, emphasis added). Thus, the client 116 is a means to which the user defines the SLC. Bradley further teaches "the user is presented with Device Selection window . . . [d]evice selection window 304 allows a user to create an (RTR) SLA device pair list." (See Bradley, col. 27, l. 64 – col. 28, l. 2, emphasis added). Bradley is replete with teachings that the user makes device selections. (See Bradley, col. 31, l. 24 – col. 34, l. 50).

As a result, Bradley fails to teach or suggest means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers. Rather, Bradley only teaches that paths defined by a customer are monitored. Thus, as previously argued, unlike the Applicants' invention, Bradley teaches ensuring that SLAs are met from a customer perspective. Thus, the methodology taught by Bradley only monitors the specific device pairs specified by the customer and whether the SLA requirements defined by the customer are met. Although some information about the path may be collected, Bradley does not teach that any of the information collected is tracking each time the SLA is violated for each customer and tracking which devices are likely responsible for the violation. Rather, Bradley assumes that the user will be able to determine which devices are responsible and target those devices for testing and monitoring.

In addition, Bradley fails to teach or suggest means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. In other words, if path measurements fall below a target value, a degradation is charged to a particular router. The total number of degradations for each router in the network may be tracked over a period of time. The Applicants' invention allows a service provider to identify a particular router that may be the cause of service degradation or breaches of SLAs.

The Examiner cites various sections of Bradley that teach various information is stored. However, none of the sections of Bradley cited by the Examiner teach or suggest means for charging a degradation against at least

one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. Rather, at best Bradley teaches collecting various information on a subset of user selected devices. (See Bradley, col. 8, ll. 48-52, col. 27, l. 64 – col. 28, l. 2, col. 31, l. 24 – col. 34, l. 50). In other words, Bradley assumes that the user knows which devices are the cause of the SLA breach or is silent as to how a user may determine which devices to select for monitoring.

As noted above, Bradley only teaches that devices specified by a user are monitored and that monitoring is performed from a customer's perspective. In contrast, the Applicants' invention teaches tracking the total number of times or instances of charged degradations for each router in the network over a period of time. For example, the Applicants' invention ensures that SLAs are met from a service provider's perspective. Thus, tracking the degradations of each router over time allows a service provider to determine which routers are underperforming based upon how many times a particular router was charged a degradation over a period of time. Nowhere does Bradley correlate any information about a path to a particular router, nor does Bradley teach or suggest anywhere that a count of degradations is tracked over a period of time for each router of all routers in the network.

Furthermore, Basturk fails to bridge the substantial gap left by Bradley. Basturk only teaches measuring a cost of each path between routers. (See Basturk, col. 5, ll. 36-65). Basturk provides costs variables to specific routers to calculate a cost of a particular path. (See Basturk, generally throughout, col. 6, ll. 5-67). In stark contrast, the Applicants' invention measures path data between routers to identify a particular router associated with the path when the data measurements of the path fall below a threshold.

Notably, Basturk is not concerned with measuring degradation in performance in a path, but only the cost of using the path. Thus, even if Bradley and Basturk were combined, the combination would still fail to teach or suggest an apparatus, method or server for making quality measurements in a network

comprising means for charging a degradation against at least one particular router of the plurality of routers within the path when data related to the measurements falls below a target value and tracking a number of said degradation for each one of said plurality of routers over a period of time.

Therefore, even if Bradley and Basturk were combined, the combination would only teach providing a user interface that allows a user to specify devices to test whether or not a SLA is being met and a system that measures a cost of each path to select a best path. Notably, the combination of Bradley and Basturk would still fail to teach or suggest an apparatus, method or server for making quality measurements in a network comprising means for taking measurements on each path of all paths within the network, wherein said each path is between a pair of routers and means for charging a degradation against at least one particular router of the plurality of routers within a path when data related to the measurements falls below a target value and tracking a number of degradations for each one of said plurality of routers in said network over a period of time. Thus, the combination of Bradley and Basturk fails to render obvious the Applicants' independent claims 1, 8 and 12.

Furthermore, dependent claims 2-7, 9-11 and 13-19 depend from independent claims 1, 8 and 12, respectively, and recite additional limitations. For the same reasons discussed above, these dependent claims are also not rendered obvious by the combination of Bradley and Basturk and are allowable. As such, the Applicants respectfully request the rejection be withdrawn.

CONCLUSION

Thus, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of the present final office action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 842-8110 x130 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully Submitted,

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